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| <b>TRANSMITTAL LETTER TO THE UNITED STATES<br/>DESIGNATED/ELECTED OFFICE (DO/EO/US)<br/>CONCERNING A FILING UNDER 35 U.S.C. 371</b>   |                           | <b>ATTORNEY'S DOCKET NUMBER</b><br><b>TCP-006</b> |
| <b>U.S. APPLICATION NO. (if known; see 37 CFR 1.5)</b><br><b>10157527A</b>  |                           |   |
| INTERNATIONAL APPLICATION NO.   | INTERNATIONAL FILING DATE | PRIORITY DATE CLAIMED                             |
| PCT/JP2004/017029   | November 10, 2004         | 11/12/2003 & 11/12/2003                           |
| <b>TITLE OF INVENTION</b><br><b>METHOD OF INVERTING POLARIZATION BY CONTROLLING DEFECT DENSITY OR<br/>DEGREE OF ORDER OF LATTICE POINTS, AND OPTICAL WAVELENGTH<br/>CONVERSION ELEMENT</b>  |                           |   |
| <b>APPLICANT(S) FOR DO/EO/US</b><br><b>Kenji KITAMURA; Sunao KURIMURA; Masaru NAKAMURA; Shunji TAKEKAWA;<br/>Kazuya TERABE; Shunichi HISHIDA; Tamaki SHIMURA</b>  |                           |   |
| <p>Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:</p> <ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li>3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) as indicated below.</li> <li>4. <input type="checkbox"/> The US has been elected (Article 31).</li> <li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is transmitted hereto (required only if not communicated by the International Bureau).</li> <li>b. <input checked="" type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US)</li> </ul> </li> <li>6. <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). <ul style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ul> </li> <li>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendment has NOT expired.</li> <li>d. <input type="checkbox"/> have not been made and will not be made.</li> </ul> </li> <li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li>10. <input type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol> <p><b>Items 11 to 20 below concern document(s) or information included:</b></p> <ol style="list-style-type: none"> <li>11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li>12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>13. <input type="checkbox"/> A preliminary amendment.</li> <li>14. <input checked="" type="checkbox"/> An Application Data Sheet under CFR 1.76</li> <li>15. <input type="checkbox"/> A substitute specification.</li> <li>16. <input type="checkbox"/> A power of attorney and/or change of address letter.</li> <li>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821–1.825</li> <li>18. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4)</li> <li>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4)</li> <li>20. <input checked="" type="checkbox"/> Other items or information: PCT/ IB/308; Front cover of WO 2005/047969 A1; PCT/ISA/210</li> </ol> |                           |   |

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| U.S. APPLICATION NO. (if known, see 37 CFR 1.5)  | INTERNATIONAL APPLICATION NO. | ATTORNEY'S DOCKET NUMBER   |   |           |
| 11-0219-271  | PCT/JP2004/017029             | TCP-006  |   |           |
| The following fees are submitted:  |                               | CALCULATIONS PTO USE ONLY  |   |           |
| 21. <input checked="" type="checkbox"/> Basic national fee   |                               | \$ 300.00  |   |           |
| 22. <input checked="" type="checkbox"/> Examination fee<br>If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT<br>Article 33(1)-(4)<br>All other situations   |                               | \$ 100.00<br>\$ 200.00   |   |           |
| 23. <input checked="" type="checkbox"/> Search fee<br>Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an<br>International Search Authority<br>International Search Report prepared and provided to the Office<br>All other situations   |                               | \$ 100.00<br>\$ 400.00<br>\$ 500.00  |   |           |
| TOTAL OF 21, 22 and 23 =   |                               | \$1,000.00   |   |           |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof  |                               |  |   |           |
| Total Sheets   | Extra sheets                  | Number of each additional 50 or fraction thereof<br>(round up to a whole number) | RATE  |           |
| - 100 =  | /50 =                         |  | × \$250.00  | \$        |
| Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).   |                               |  | \$  |           |
| CLAIMS   | NUMBER FILED                  | NUMBER EXTRA   | RATE  |           |
| Total Claims   | 26                            | - 20 = 6   | × \$ 50.00  | \$ 300.00 |
| Independent Claims   | 4                             | - 3 = 1  | × \$200.00  | \$ 200.00 |
| MULTIPLE DEPENDENT CLAIM(S) (if applicable)  |                               |  | + \$360.00  | \$        |
| TOTAL OF ABOVE CALCULATIONS =  |                               |  | \$ 1,500.00   |           |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by ½.   |                               |  | \$ 0.00   |           |
|  |                               | SUBTOTAL =   | \$ 1,500.00   |           |
| Processing fee of \$130.00 for furnishing the English translation later than the 30 months from the earliest claimed priority date (37 CFR 1.492(f)).  |                               | +  | \$ 0.00   |           |
|  |                               | TOTAL NATIONAL FEE =   | \$ 1,500.00   |           |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property   |                               | +  | \$ 40.00  |           |
|  |                               | TOTAL FEES ENCLOSED =  | \$ 1,540.00   |           |
|  |                               | Amount to be refunded:   |   |           |
|  |                               | Amount to be charged:  |   |           |
| <p>a. <input type="checkbox"/> A check in the amount of \$ _____ .00 to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. 11-0219 in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 11-0219. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p> |                               |  |   |           |
| NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.   |                               |  |   |           |
| SEND ALL CORRESPONDENCE TO:<br><b>HAUPTMAN KANESAKA BERNER</b><br>Patent Agents, LLP<br>1700 Diagonal Road, Suite 310<br>Alexandria, VA 22314<br>(703) 519-9785  |                               | Customer No.<br>32628<br>PATENT TRADEMARK OFFICE                                 | <br>SIGNATURE<br><b>Manabu Kanesaka</b><br>NAME<br><b>31,467</b><br>REGISTRATION NUMBER |           |